



# Ø BEAT



COLO. SPRINGS,  
COLORADO

January 1982

## Do It Right The First Time (Part 2)

### MORE ON UHF CONNECTORS

Last month we talked about how to properly install a standard UG type PL-259 connector on RG-8 type of coax cable. This month I'd like to discuss the UG-175/U and the UG-176/U REDUCERS for use with RG-58 and RG-59 cables as well as the New Mini-8 type cables.

Following the procedures and measurement from one popular connector manufacturer's catalog plus appropriate modifications results in improved cable retention as well as a somewhat improved moisture resistance.

With the reducer slid down the coax, wrap a turn of tape around the coax about  $\frac{1}{4}$ " in from the end. With the reducer in place, and the tape flush with the small end (I use 1 inch wide tape) of the reducer, and  $\frac{1}{4}$  inch of cable protruding, very carefully remove the cable jacket, flush with the end of the reducer. Be especially careful not to cut any braid wires.

Now here is where I differ with the connector manufacturer: He says to push the braid back over the reducer without unbraid the braid. I preferred to unbraid and straighten out each small braid wire and uniformly fold them back over the reducer. Work the conductors down smoothly and tightly against the reducer. This will pay off later. I take a piece of number 22 or 24 wire and tie the braid wires, securely to the reducer for the next operation. Place the wire tie as close to the threaded portion of the reducer as possible. One to two turns on the tie wire is all that is required.

Now, with that HOT soldering iron, very quickly, but thoroughly solder the braid wires to the reducer below the tie. You should have about  $\frac{1}{8}$  inch of braid wires soldered in place. Let things cool off!

Now that things have cooled off, remove the tie wire and cut the braid wires off just below the threads so none will bind in the connector threads. Now that that is done, it may take a little filing to reduce your excessive solder job. Along about now is as good a time as any to remove the center insulation, leaving  $\frac{5}{16}$  inch of insulation protruding from the end of the reducer. Tin the center conductor before proceeding.

Now you can make a trial assembly, to see if additional filing is required to assemble the connector. If all goes well, and you can assemble the body of the PL-259 on the reducer with minimal force, then lock the reducer into the connector, tightly, with a pair of slip joint (gas) pliers. The center coax conductor should be flush, or 'just' protrude from the center pin of the PL-259. Now, with the hot soldering iron, apply a drop of solder to each of the four solder holes in the PL-259 body. Heat things sufficiently to 'flow' the solder. Let things cool down again and check for shorts. If all is well, proceed. Place your soldering on the bench and weight the handle so that you can use both hands — hold the PL-259 with the center pin DOWN, against the soldering iron and apply solder to this junction. When the center pin is sufficiently hot, the solder will flow up inside the center pin by capillary action. All that is needed now, is to trim off the excess center conductor and to remove any flux residue from the center pin, and you should have a grade A connector installation. It is highly advisable to, in outside installations, coat each PL-259 assemblies with a thin layer of Silicon Rubber (RTV). These Connectors, by themselves, are not weather resistant and need additional protection, so place RTV around the cable/connector interface, and both ends of the coupling ring. This will do it about as well as can be

(continued on page 5)

## P.P.R.A.A. DIRECTORS

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(\*Two-year board terms began October 1981)

**ZERO BEAT** is published monthly in the interest of the members of the Pikes Peak Radio Amateur Association, Inc., Colorado Springs, Colorado. Permission is given to reprint articles or excerpts provided credit is given. Deadline for submission of articles is the 21st of the month. Classifieds accepted anytime.

The Pikes Peak Radio Amateur Association meets on the second Wednesday of every month at the First United Methodist Church, 420 N. Nevada, at 7:30 p.m. All amateurs and interested parties are invited to attend.

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### DECEMBER MEETING MINUTES

The meeting was called to order at 7:42 on December 9, 1981 by Vice-President Al Bailey. The members and guests introduced themselves.

Many people present had attended the club Christmas party at the Iron Springs Chateau and commented that it had been very enjoyable.

An announcement for the upgrade classes to begin in December at North Jr. High was made. WBØSJR, Warren, will teach theory on Thursday evenings and NØDV, Dave, will handle code practice.

The Interference Committee reported no new investigations.

It was announced that minutes of the October meeting of the CCARC would appear in January Zero Beat. The next meeting of CCARC will occur in January in Ft. Collins. Al, ADØZ, took time to comment on his feelings that the CCARC looks after the interests of hams in the state and congratulated their efforts, serious intent, and expertise.

The treasurer's report was given showing a balance of \$1266.59. A financial report appeared in November Zero Beat and the club financial records and checkbook were available for inspection at the meeting.

After the announcements it was moved and seconded that the minutes of November's meeting be accepted as printed in Zero Beat. Many thanks to Charlene, WBØYOB, for taking those notes!

After break it was announced that two of our visitors, Jimene Chicon and her mother, were interested in having someone set up a schedule with their ham father/husband in Chile. (Volunteers were available).

The December program consisted of Home Brew Night with several participants competing for honors and a chance to share in an excellent selection of prizes. The categories for competition were Open, Under \$50, Originality, and Most with the Least. The winners of each category were Ray, AAØL, for a satellite TV system, Les, WDØGTA, for a collapsible 2-meter quad, Steve, NØST, for an Oscar satellite locator computer program, and Dave, WBØTAQ, for a 5-watt 80 meter transmitter. Congratulations to all who participated for the fine work they did with their projects and for making the program a success.

The January meeting will be at First United Methodist Church at 7:30 P.M. on January 18 with a program on contesting. The meeting adjourned at 9:45 P.M.

Respectfully submitted,  
Greg, KAØFOZ


**FOR SALE:** Six meter USB-LSB-SW-AM station includes Heath HA-20 transmitter, Heath HX-30 120 watt line amplifier, Ameco CN 6 to 10 meter converter, Ameco PS-1 power supply, coaxial antenna relay, Cush Craft A50-3 3 element beam, Drake TV-1000 LP low-pass filter (not required but it is good insurance). Complete with all interconnecting cables and manuals (except Ameco). All that is needed is your 10 meter receiver and coax to go between the transmitter and antenna and your in business with a very high quality medium power six meter station. All equipment in excellent condition. \$250.00 complete. Ray Uberecken AAØL 495-3544.

*Typesetting courtesy The Letter Setters*

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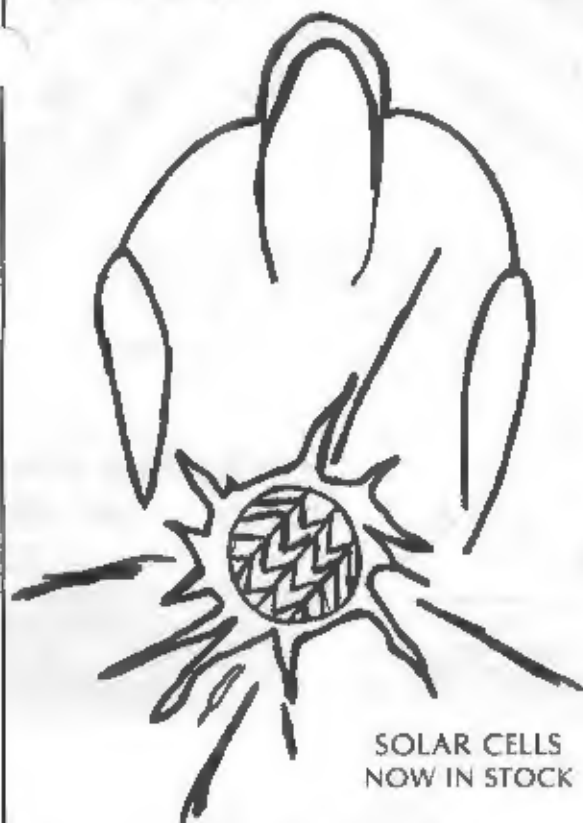
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Zero Beat editor without  
your help.

## DECEMBER BOARD MINUTES

The meeting was called to order at 7:45 P.M. at the home of Karl, K4DQ. Those present besides Karl were Al, ADOZ; Les, WDOGTA; Bud, NODDF; Greg, KAOFOZ; Tom, ADOO; and Mark, KAOJXW.

Several items of discussion were presented to the board starting with a report on CCARC. The minutes of CCARC meeting were reviewed. Two tasks were assigned; preparation of CCARC membership form and resolution of our representational status with CCARC.

The City of Colorado Springs is establishing a Cablevision Advisory Committee. It was suggested that there be a ham volunteer for this committee and Karl, K4DQ volunteered. There will be follow-up to find out more about the committee and status of any advising we can do. More in January.

The by-laws of the club are being retyped to update and proof the current by-laws. Any changes will be presented to the membership for approval.

The resignation letter of board president Smitty, WBOLTV was formally placed in possession of the Secretary. The board assigned a task group to further discuss this matter. The by-laws of the club will promote Al, ADOZ to president and an election will be held for the open office of vice-president by the membership.

After coffee and donuts it was announced that the club had been invited to use the station of Ray, AAOL, for the upcoming ARRL VHF Sweepstakes.

Discussion of the function of the Public Relations Committee followed with Mark, KAOJXW, the chairman, in attendance. Several good ideas were mentioned.

The meeting was adjourned with approval by the board for a \$10 expenditure to purchase a licensing guide for the upgrade classes.

The next meeting of the board will be Jan. 18, 1982, at the home of Greg, KAOFOZ, at 7:30 P.M. Members are invited to attend.

Respectfully submitted,  
Greg, KAOFOZ

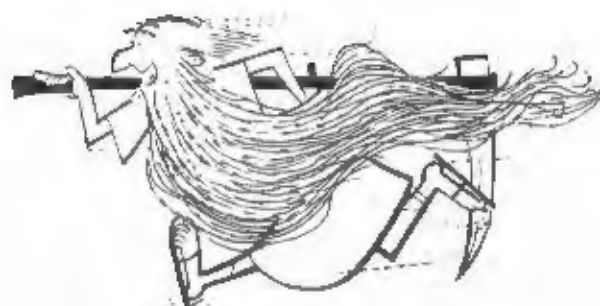
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Happy New Year from Zero Beat!

### MEETING NOTICE

The January Meeting of the Pikes Peak Radio Amateur Association will be held on January 13, 1982 at the First United Methodist Church located at Nevada and Boulder. The program will be on radio contesting. All members and interested persons are invited to attend.

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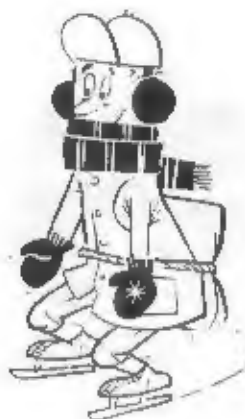
MICROPHONES

### 10-10'ers Take Note

Don WDØBSZ passes along that 10X International suffering from lack of funds and has appealed to members for help. See him for more info.

### MEMBERSHIP APPLICATION

On the bottom of page 5 is the membership form for the club for 1982. Dues remain the same as last year — \$12.00 for single and \$15.00 for family membership. Please fill in all the information so our records are correct. Members have until March 1 to renew their membership so as not to miss any Zero Beat issues. Take a moment and fill out the form — so you don't forget to later.



Chapman College at Peterson AFB is purchasing equipment for student electronic Labs. If you have any or all of the following equipment for sale, please call 597-0445 (M to Fri, 8:30 a.m. to 4:30 p.m.) or 633-5281 (after 4:30 p.m. and weekends). All equipment must be in perfect condition.

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Zero Beat will gladly run any classified ad submitted to it. However, classifieds will run for one month only, unless the advertiser notifies Zero Beat to continue the ad. If more than one item is listed, please keep us informed as to what sold, so that the ads are accurate. Commercial advertisers are welcome to change or update their ads whenever necessary. The ads in Zero Beat are useful to our readers, let's keep them up to date and accurate.

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#### Reducers (cont.)

expected. Oh and if you are using a SO 239 to make a 2 meter ground plane antenna, place a thin coat of RTV over the insulator and center conductor of the SO-239, overlap onto the metal, work it down good. This seals the connector, preventing the water from seeping in eventually into the cable. By the way, the curing agent in silicon rubber, (RTV) is Acetic Acid so go sparingly to allow the acid to evaporate before the rubber 'cures' and traps the acid inside. That would then result in a nice short circuit.

Well, that's that for now. If anyone out there has a question don't hesitate to ask.

Good Luck,  
Smitty, WBØPLTV

Our thanks to Smitty for his series of articles. They remind us that the basics are of great importance and worth doing correctly.

**NOTE:** Articles concerning technical information are printed in Zero Beat for the consideration of readers. Zero Beat does not vouch for the accuracy of data and conclusions drawn.